

The occurrence of some Australian Insects and a Spider in New Zealand.

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These notes concern the occurrence in New Zealand of five insects and a spider, four of which have not previously been recorded, while the rest are of special interest. Two of these are of importance as potential plant pests. Detailed descriptions of these insects are available in various publications and are not given in this paper.

Class INSECTA.

Order DIPLURA.

Family Japygidae.

Japyx tillyardi Silv. 1930. New Record.

A single specimen of this insect was found under a small rotted log in the Waitakere Ranges, May 1941. Previously it was known from South Australia (Womersley, 1939). Tillyard (1924) mentions the occurrence of two species of this family in New Zealand, and the discovery of a species common to Australia and New Zealand is of interest as it seems improbable that specimens could have been accidentally introduced into the heart of the Waitakere Ranges, and we prefer to regard it as indigenous, but previously undiscovered. Dr. H. Womersley, who identified the specimen, remarked that the discovery was interesting, but not unexpected. The specimen is in the insect collection of the Plant Diseases Division.

Order HEMIPTERA.

Family Pentatomidae.

Cuspicona simplex Walker, 1867. New Record.

In September, 1939, many specimens of this green Pentatomid bug were collected from the foliage and fruit of *Solanum auriculatum* Ait. at Owairaka, Auckland. It has since been found to be widely distributed on the above host in Auckland, and has occurred on *Solanum sodomaeum* L. at Waiheke Island. It has also been taken on tomatoes at Remuera, New Plymouth and at Hokianga, at which latter place it was stated to be attacking the fruits as they turned colour and to be very abundant,

as many as a dozen bugs being on one fruit. Mr. A. Musgrave, of the Australian Museum, identified our specimens as *Cuspicona simplex* Walker, known from Queensland, New South Wales, South Australia (type locality) and from Tasmania. In Australia it has been recorded from *Solanum nigrum* L. and from potatoes (Tryon 1889, Froggatt 1901) and as attacking tomato fruits, causing these to become shrunken and small (Sloan 1941) although it is never regarded as a serious pest. The details of the life history do not appear to be known. This species can be readily separated from the other Pentatomid bugs known to occur in New Zealand by the green colour, medium size (length 11-12 mm.) and the sharply pointed lateral angles of the pronotum.

Order COLEOPTERA.

Family Scarabaeidae.

Heteronychus sanctae-helenae Blanchard, 1853.

A specimen of this beetle was sent to the Museum from Stanley Point, North Shore, Auckland, in December 1939, with the information that a swarm was doing considerable damage to the foliage of vegetables. Since then specimens have been seen from the original locality February, 1940, and from Waiheke Island, March 1937 and December 1942, these latter being collected by G. Chamberlain. The original specimen was misidentified in Australia as *Pentodon australis* (Blackburn), and this name was used by Cunningham (1940), who first recorded the pest in the Dominion.

The use of the name *P. australis* was later seen to be in error, as the males had enlarged and conspicuously unequal anterior claws which are characteristic of the genus *Heteronychus* Burm. In Jack's key (1924) our specimens run to *H. arator* Burm. (nec F) which Arrow (1937) has synonymised with *H. sanctae-helenae* Blanchard. The species is known from St. Helena; Cape Province, Rhodesia and the Transvaal in South Africa; East Africa; Abyssinia; Madagascar; and from New South Wales, Australia, where it is considered to have been recently introduced.

The adult beetle is an important pest of maize plants in Cape Colony (Jack 1924) and in the coastal district of New South Wales has caused considerable damage to maize, sugar cane and vegetable crops (McCarthy 1934, Anon 1939). In New Zealand there have as yet been no further reports of damage to crops or to pastures.

Mr. T. G. Campbell, Division of Economic Entomology, Canberra, checked our identification of *H. sanctae-helenae* and supplied the synonymy and the references to its economic status in Australia. The original specimen is in the Museum collection, while additional specimens—including a dissection of the male genitalia—are in the collection of the Plant Diseases Division.

Order LEPIDOPTERA.

Family Nymphalidae.

Danaus melissa hamata Mackay, 1827. New Record.

A single female specimen of this butterfly was found amongst tangled kumara foliage at Pakaraka, Bay of Islands, during March, 1940. No other occurrences of the butterfly have been reported and since it is in poor condition it possibly represents a straggler from Australia, where the species is common in Queensland and occurs rarely as far south as New South Wales. The typical species, *D. melissa melissa* Cramer occurs in Java, and various subspecies of the typical species occur in Australia; in the Samoan group (Hopkins 1927); in the Fijian group; in the New Hebrides, and in the Solomon Islands (Poulton 1924). Our specimen agrees well with the photographs of *D. m. hamata* W.S.M. given by Froggatt (1907), Waterhouse and Lyell (1914) and Tillyard (1926). It does not agree with the figures of Hopkins (1927), of the Samoan subspecies, or with those of Poulton (1924) of the Fijian subspecies. While we are quite satisfied with the above naming, the differences between the named subspecies sometimes appear trivial and a revision of the subspecific name may be required at a later date.

The specimen is in the collection of the Auckland Museum, where it was sent by its finder, Master Peter Ludbrook.

Family Noctuidae.

Dasypodia cymatoides Guen.

This moth is common in the Auckland district, while the closely related *D. selenophora* Guen. is rare. In Otago, Sorensen (1939) found *D. selenophora* exclusively, while Hudson (1928) and (1939) regards *D. cymatoides* as rare.

The following specimens of *D. cymatoides* are in the Auckland Museum Collection: Auckland, March 1928; March 1930; March 1933.

In addition, over forty specimens have been taken during the last few years in the periods October-December and March-April, usually at rest on the walls of houses and buildings, but many have also been reared from pupae taken from under the dead bark and debris of *Albizia lophantha* Benth., which is probably a host plant. They are not of any economic importance.

Class ARANEIDA.

Family Clubionidae.

Isopeda insignis (Thor.). 1870. New Record.

This spider is occasionally forwarded from the Mt. Albert and Avondale districts, to which it appears to be confined. This spider does not appear to have been recorded in New Zealand, although it has been present for many years, as shown by specimens in the Museum Collection

as follows: Mt. Albert, September 1924; January 1933; Avondale, February 1929; March 1938; January 1942; March 1942 (two specimens); March 1944.

The large size and hairy appearance, together with the habit of remaining motionless and fully extended on the walls of houses, have resulted in a good deal of misconception of the true nature of these spiders. They are usually regarded as dangerous, if not actually venomous, while in fact they are completely harmless and rather timid, without any means of defence.

The species is widespread throughout Australia, with a northern and southern form which are doubtfully distinct. The Australian representatives of the group have been treated by Hogg (1902), and in his key our specimens run easily to the above name. Dr. H. Womersley identified our material.

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